EPA-77

James R McGoodwin
<james.mcgoodwin@Colorado.EDU>

04/06/2011 07:41 PM

To Phil North

cc

bcc

Subject RE: ENHANCING THE RESILIENCE OF SMALL HIGH-LATITUDE FISHING COMMUNITIES TO CLIMATIC AND MARINE-ECOSYSTEM CHANGE

Dear Phillip North,

Thanks for your informative reply.

As I mentioned in my previous email, my focus heretofore in the Bristol Bay fisheries has been on fisheries management, and without thinking about it I must have taken water quality for granted. When I did field research there in 2002 (which included work in several villages along the Nushagak River, as well as a village on the Wood River near Dillingham) nobody seemed worried about mining impacts on water quality.

As you no doubt know, management of the fishery by the ADFG has been a resounding success biologically, sustaining salmon stocks at high levels. Yet despite this Bristol Bay's commercial fishery has seen a steady decline economically due to soaring production of farmed salmon and declining salmon prices. Thus, the steady decline in Bristol Bay's commercial fisheries can be attributed almost entirely to factors arising outside of the Bristol Bay region itself. In my presentation at the forthcoming ESSAS meeting in Seattle I will suggest some changes in management policy that may improve things for Bristol Bay's commercial fishery, but otherwise I think declining prices for salmon will remain a perplexing problem here for years to come.

Moreover, there are a few who maintain that the sustained high stock levels in recent years are less due to ADFG's vigilance in ensuring adequate escapement and instead more due to a large-scale climatic phenomenon: the Pacific Decadal Oscillation. In general it is theorized that when the PDO is in favorable position for Bristol Bay salmon stocks it simultaneously depresses stock levels further south (British Columbia, Washington, etc.), and vice versa. So, should the oscillation change to its other dominant position in the near future we may see a drastic decline in Bristol Bay's salmon stocks --no matter what management strives to do.

Of course, there are two principal salmon fisheries in the Bristol Bay region: the subsistence fishery, with widespread participation among the region's indigenous people, and the commercial fishery.

My 2007 paper (the one I wrote you about) concluded that the subsistence fishery was still quite viable inasmuch as stock levels still exceeded subsistence fishers' annual needs, but that the commercial fishery had various problems. But now, when I look at the subsistence fishery historically, I am reminded that many indigenous people who relied on the subsistence fishery still sometimes also involved themselves in the commercial fishery to various degrees, depending on their perceptions of their household income needs, whereas under the current management regime this is no longer possible and the participants in the commercial fishery now comprise a much smaller and definite group of license holders.

Let me know if I can help in any way, and please keep me informed as your work progresses.

yours,

James R. McGoodwin
Institute of Arctic and Alpine Research
University of Colorado
Boulder, CO 80309

-----Original Message-----
From: North.Phil@epamail.epa.gov [mailto:North.Phil@epamail.epa.gov]
Sent: Wednesday, April 06, 2011 4:13 PM
To: James R McGoodwin
Subject: RE: ENHANCING THE RESILIENCE OF SMALL HIGH-LATITUDE FISHING COMMUNITIES TO CLIMATIC AND MARINE-ECOSYSTEM CHANGE

James,
Thanks for the reference. I will look it up.

Last spring EPA received a letter from six tribal governments from the Bristol Bay watershed requesting that we use our Clean Water Act Section 404(c) authority to prevent, in advance of any permit review, the mining of sulfide ore bodies in the watershed. Of course that would include Pebble, but would also target other ore bodies being explored. Subsequently EPA received similar letters from three more tribes, BBNC, BBNA, several commercial fishing organizations and many others. We also received a letter from two tribal governments, the State of Alaska, PLP and others asking that we allow the permit/NEPA process to proceed. After a great deal of internal discussion EPA decided that we needed to review available information (we are too early in the process for any record to exist). So we are currently reviewing information on the risks to fisheries associated with the development of reasonably foreseeable large-scale development in the Bristol Bay watershed. We are focusing on the Nushagak and Kvichak watersheds. The two types of large scale development that have been proposed for the watershed are mining and road building.

We have assembled a team of scientists from EPA and from a contractor. The contractor has subcontracted most of the work to various institutes of the University of Alaska. We have made good progress in describing the fishery. Now we need to develop a risk assessment. That work is about to begin. Once we have completed this effort, which is expected next spring, we will begin to address the question of using our 404(c) authority.

That is about it.

If you think of anything that might be helpful to us, please let me know.

Thanks,

Phil

Phillip North
Ecologist
Environmental Protection Agency

Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax   260-5992
north.phil@epa.gov

"To protect your rivers, protect your mountains."

From: James R McGoodwin <james.mcgoodwin@Colorado.EDU>
To: Phil North/R10/USEPA/US@EPA
Date: 04/06/2011 01:28 PM
Subject: RE: ENHANCING THE RESILIENCE OF SMALL HIGH-LATITUDE FISHING COMMUNITIES TO CLIMATIC AND MARINE-ECOSYSTEM CHANGE

Dear Phillip North,

I haven't published a paper yet concerning the presentation I plan to give at the forthcoming ESSAS meeting in Seattle next month, although an earlier paper published a few years ago, which you should be able to secure online, might be of some interest: 2007 McGoodwin, James R., "Effects of climatic variability on three fishing economies in high-latitude regions: Implications for fisheries policies." Marine Policy 31: 40-55. Two of the three case studies in that article pertain to the indigenous subsistence and the commercial fisheries in Bristol Bay.

Heretofore my focus has been mainly on suggestions for innovations in current fisheries-management policies that might enhance the resilience (or adaptive capacities) for the Bristol Bay fisheries, and I only became aware of the water-quality and water-conservation issues surrounding the proposed Pebble Mine in 2008 when a colleague invited me to see a screening of the film, "Red Gold."

Since then I've tried to learn all I can about this proposed development online, my main sources being the websites for the Bristol Bay Alliance and the Bristol Bay Native Association. Otherwise I'm left feeling like I don't have a good idea of what is going on NOW regarding the proposed mine, and so would like to turn the tables and ask if you can provide me with any updates regarding that?

yours,

James R. McGodwin

-----Original Message-----
From: North.Phil@epamail.epa.gov [mailto:North.Phil@epamail.epa.gov]
Sent: Monday, April 04, 2011 5:31 PM
To: James.Mcgoodwin@Colorado.EDU
Subject: ENHANCING THE RESILIENCE OF SMALL HIGH-LATITUDE FISHING COMMUNITIES
TO CLIMATIC AND MARINE-ECOSYSTEM CHANGE

Dr. McGoodwin,
You may have heard that EPA is conducting a watershed assessment in Bristol Bay in response to requests to use our Clean Water Act Section 404(c) authority in relation to the proposed Pebble copper mine. The above title of a seminar you presented was forwarded to me by a colleague. Have you published a paper on this subject? If so, can you send me a reprint? If not, can you share your findings with our team?

We have assembled a team of aquatic ecologists, anthropologists, economists and geochemists to review existing information on Bristol Bay and the types of large scale development that are likely to occur there in the foreseeable future. By its title your paper appears to be useful. We would also be interested in any other publications or data you have relating to Bristol Bay.

Thanks,
Phil

Phillip North
Ecologist
Environmental Protection Agency
Kenai River Center
514 Funny River Road
Soldotna, Alaska 99669
(907) 714-2483
fax 260-5992
north.phil@epa.gov

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